

**RESTORATION INFORMATION MANAGEMENT SYSTEM
FORMERLY USED DEFENSE SITES (FUDS)
PROJECT FACT SHEET
FEBRUARY 1998
HNC REVISION: 27 AUGUST 1998
TAG REVIEW DATE: 27 OCTOBER 1998**

1. **SITE NAME:** Millville Bombing and Gunnery Range

SITE NUMBER: C02NJ079200

LOCATION:

City: Millville
County: Cumberland County
State: New Jersey

PROJECT NUMBER: C02NJ079202

CATEGORY: OE

INPR RAC: 4

ASR RAC: 2

TAG RAC: 2

2. **POC'S:**

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3. **SITE DESCRIPTION:** The former Millville Bombing and Gunnery Range consists of 14,166.14 acres of land located in the southwest portion of the state, about eight miles inland from Delaware Bay and one mile southwest of Millville, Cumberland County, New Jersey. A major portion of the former site is now

part of the state owned Edward G. Bevan Fish and Wildlife Management Area. The remainder of site land contains a municipal airport and industrial park to the north, private residences along the western boundary, commercial sand mining operations near the southern boundary, and two county parks near the southern and eastern boundaries.

The topography of the site is relatively flat and consists of forest, marsh, undeveloped, and improved land. Site elevations range from a maximum of 80 feet to 30 feet above mean sea level. relief within site boundaries Vegetation in the forested areas consists of mixed oak trees (red, black, scarlet, white, and chestnut), hickory trees, beech trees, a few indigenous mixed pine trees (pitch, Virginia, and shortleaf), and shrubs, mainly lowbush blueberry, mountain laurel, bracken fern, gallberry, and holly. Vegetation in the numerous site fields consists of weeds and planted wildlife forage crops. The remaining site acreage has been cleared for airport, industrial park, residential, and former Army Air Corps facilities, and consists primarily of buildings, paved surfaces, grassed lawns, and weedy areas.

Significant surface bodies of water are Shaws Mill Pond (3/4 of a mile long by 1/8th of a mile wide) located on the southwestern corner, and Buckshutem Creek, running from the center of the western boundary to the northwest corner and beyond. Climate is humid and temperate. Yearly average rainfall is 40.9 inches. The daily average temperature for summer months is 71.1° F. The figure for the winter months I 33.2° F. The record high was 106° F in June of 1969 and the low was -11° F in February of 1979.

4. **SITE HISTORY:** Over a period from 1942 to 1943, the United States purchased 7,797.03 acres fee and acquired 6,369.11 acres under lease contract for a total of 14,166.14 acres for use as a bombing and gunnery range. Dedicated as the nation's first Defense Airport on 2 August 1941, Millville Airport was designed so that it could easily be converted to a military airfield should the United States enter a war. Following the bombing of Pearl Harbor and the United States entry into WWII, the Army Air Corps decided to utilize this Millville base as a pursuit ground gunnery range for the training of fighter pilots, and as an alert field in event of an enemy attack upon the Atlantic coast. The base was known as the Millville Army Air Field and Millville Bombing and Gunnery Range: the air field portion of the facility consisted of 887.65 leased acres and the remaining 13,278.49 fee and lease acres was secured for gunnery training.

The site was used by the Army Air Force. Improvements consisted of runways, hangers, concrete firing bunkers, fuel tanks, a gasoline station, and administration and personnel

buildings. Ordnance related structures on the air field proper consisted of five ordnance storage warehouses, one segregated storage building, one arms warehouse, two pyrotechnic storage buildings, one small arms ammunition storage building, one small arms range, one shooting-in-butt range, and one skeet range.

Initial bombing and gunnery range area development consisted of the clearance and development of the area into several separate range areas to include bombing ranges, strafing ranges, and two 1500 by 3000 feet scoring ranges. Construction of targets and facilities in the range area was said to consist of 23 strafing targets, 25 bombing targets, 12 target pits, two range houses, and two range towers. Bombing and strafing ranges included elaborately constructed wooden targets in the form of a submarine, a convoy (troops, trucks, and tanks), planes, gun emplacements, trains, dispersed tanks, a railroad, a bridge, a destroyer, an aircraft carrier, and ammunition dumps. Later range development was necessitated by interference between the airfield traffic pattern and flight patterns of the two original scoring ranges. This caused the scoring ranges to be replaced by two additional scoring ranges ("A" and "B") consisting of 12 target pits and two range shacks. In addition, historical documents, interview information, and physical evidence display the later development of a combination skip bombing and rocket range and a separate rocket range. Actual target construction consisted of 23 strafing targets (35 counting the 12 additional targets in the relocated scoring ranges), one dive bombing range target (strafing conducted in conjunction with bombing), one skip bombing/rocket range target, and one rocket range target.

On 17 December 1942, the first contingent of military personnel arrived at the Millville Army Airfield to prepare the station for the advanced gunnery training of fighter pilots. In the latter part of January 1943, the first training unit arrived at Millville. Pilot trainees received ordnance related training consisting of air gunnery, ground gunnery, skip bombing, dive bombing, and rocketry (beginning in 1945). Some pilot trainees also conducted chemical spray missions, using a screening smoke in the spray tanks rather than an actual chemical agent.

In August 1945, Millville Army Air Field received word from Headquarters, Mitchel Field, New York, that no new pilots were to be assigned there. Later, in September of 1945, the Millville Army Air Field was "temporarily closed", and in November it was permanently closed. The last military personnel left in early 1946. The Millville Army Air Field was declared surplus on 18 June 1946.

Accountability for 887.65 acres lease and 7,797.03 acres fee were assumed by the War Assets Administration (WAA) on 2 October

1946 and 9 November 1946, respectively. From 9 - 14 February 1946, leases were terminated on several parcels totaling 5,481.46 acres; these parcels were returned to private interests. Total acreage disposed was 14,166.14 acres. The 887.65 acre lease area was conveyed to the City of Millville, New Jersey, and is now part of the Millville Municipal Airport. Portions of the Airport are currently occupied by aircraft maintenance companies. The 7,797.03 acre fee area was transferred to the State of New Jersey and is now part of the Edward G. Bevan Fish and Wildlife Management Area. The 5,481.46 acres of cancelled leases are currently being used for residential and farming purposes, or are undeveloped.

5. PROJECT DESCRIPTION:

AREA A

Size, Acres:	3.00
Former Use:	Ordinance Storage Areas
Present Use:	Municipal Airport
Probable End Use:	Municipal Airport
Ordinance Presence:	None
Type:	Not applicable

AREA B

Size, Acres:	1.00
Former Use:	Pyrotechnic Storage Areas
Present Use:	Municipal Airport
Probable End Use:	Municipal Airport
Ordinance Presence:	None
Type:	Not applicable

AREA C

Size, Acres:	0.50
Former Use:	Arms Warehouse
Present Use:	Municipal Airport
Probable End Use:	Municipal Airport
Ordinance Presence:	None
Type:	Not applicable

AREA D

Size, Acres:	0.50
Former Use:	Small Arms Ammo Storage Area
Present Use:	Municipal Airport
Probable End Use:	Municipal Airport
Ordinance Presence:	None
Type:	Not applicable

AREA E

Size, Acres: 0.50
Former Use: Small Arms Range
Present Use: Municipal Airport
Probable End Use: Municipal Airport
Ordnance Presence: **None**
Type: Not applicable

AREA F

Size, Acres: 0.50
Former Use: Segregated Ammo Storage Area
Present Use: Municipal Airport
Probable End Use: Municipal Airport
Ordnance Presence: **None**
Type: Not applicable

AREA G

Size, Acres: 5.00
Former Use: Skeet Range
Present Use: Municipal Airport
Probable End Use: Municipal Airport
Ordnance Presence: **None**
Type: Not applicable

AREA H

Size, Acres: 5.00
Former Use: Shooting in Butt Range
Present Use: Municipal Airport
Probable End Use: Municipal Airport
Ordnance Presence: **Confirmed**
Type: Practice Bombs W/Spotting Charges,
Small Arms Ammunition

AREA I

Size, Acres: 103.00
Former Use: Old Scoring Range "A"
Present Use: Undeveloped city land/State Wildlife
Refuge
Probable End Use: Undeveloped city land/State Wildlife
Refuge
Ordnance Presence: **Confirmed**
Type: Practice Bombs W/Spotting Charges,
Small Arms Ammunition, Practice
Rockets

AREA J

Size, Acres: 103.00
Former Use: Old Scoring Range "B"
Present Use: Undeveloped city land/State
Wildlife Refuge
Probable End Use: Undeveloped city land/State
Wildlife Refuge
Ordinance Presence: **Confirmed**
Type: Practice Bombs W/Spotting Charges,
Oil Incendiary Bombs, Practice
Rockets

AREA K

Size, Acres: 8.00
Former Use: Landfill
Present Use: Undeveloped city land
Probable End Use: Undeveloped city land
Ordinance Presence: **Potential**
Type: Practice Bombs W/Spotting Charges,
Oil Incendiary Bombs, Practice
Rockets, Burster Tubes and Fuzes
from/in Chemical Bomb Bodies (Used
as Practice Bombs), Burster Tubes
with Fuzes, Small Arms Ammunition

AREA L

Size, Acres: 86.00
Former Use: Skip Bombing/Rocket Range
Present Use: State Wildlife Refuge
Probable End Use: State Wildlife Refuge
Ordinance Presence: **Confirmed**
Type: Practice Bombs W/Spotting Charges,
Practice Rockets, Burster Tubes
and Fuzes from/in Chemical Bomb
Bodies (Used as Practice Bombs)

AREA M

Size, Acres: 112.00
Former Use: Buffer Zone
Present Use: State Wildlife Refuge
Probable End Use: State Wildlife Refuge
Ordinance Presence: **Potential**
Type: Practice Bombs W/Spotting Charges,
Practice Rockets, Burster Tubes and
Fuzes from/in Chemical Bomb Bodies
(Used as Practice Bombs).

AREA N

Size, Acres:	5.00
Former Use:	Rocket Range
Present Use:	State Wildlife Refuge
Probable End Use:	State Wildlife Refuge
Ordnance Presence:	Confirmed
Type:	M54 and M69 Incendiary bombs

AREA O

Size, Acres:	75.00
Former Use:	New Scoring Range "A"
Present Use:	State Wildlife Refuge
Probable End Use:	State Wildlife Refuge
Ordnance Presence:	None
Type:	Not applicable

AREA P

Size, Acres:	1,074.00
Former Use:	Strafing Ranges
Present Use:	State Wildlife Refuge
Probable End Use:	State Wildlife Refuge
Ordnance Presence:	None
Type:	Not applicable

AREA Q

Size, Acres:	86.00
Former Use:	Dive Bombing Range
Present Use:	State Wildlife Refuge
Probable End Use:	State Wildlife Refuge
Ordnance Presence:	Confirmed
Type:	Practice Bombs W/Spotting Charges

AREA R

Size, Acres:	45.00
Former Use:	Buffer Zone
Present Use:	State Wildlife Refuge
Probable End Use:	State Wildlife Refuge
Ordnance Presence:	Confirmed
Type:	Practice Bombs W/Spotting Charges

AREA S

Size, Acres:	75.00
Former Use:	New Scoring Range "B"

Present Use:	State Wildlife Refuge
Probable End Use:	State Wildlife Refuge
Ordnance Presence:	None
Type:	Not applicable

AREA T

Size, Acres:	12,450.14
Former Use:	Remaining Land
Present Use:	State Wildlife Refuge/City Airport/ Undeveloped City Land /Private Residential and Commercial Property/Township Parks
Probable End Use:	State Wildlife Refuge/City Airport/ Undeveloped City Land /Private Residential and Commercial Property/Township Parks
Ordnance Presence:	None
Type:	Not applicable

6. **CURRENT STATUS:** The Archives Search Report (ASR) for the Millville Bombing and Gunnery Range was completed by the U.S. Army Corps of Engineers, Rock Island District, in February 1998.

7. **STRATEGY:**

AREA A:	RAC 5;NOFA
AREA B:	RAC 5;NOFA
AREA C:	RAC 5;NOFA
AREA D:	RAC 5;NOFA
AREA E:	RAC 5;NOFA
AREA F:	RAC 5;NOFA
AREA G:	RAC 5;NOFA
AREA H:	RAC 4;EE/CA
AREA I:	RAC 4;EE/CA
AREA J:	RAC 3;EE/CA
AREA K:	RAC 5;NOFA
AREA L:	RAC 4;EE/CA
AREA M:	RAC 4;EE/CA
AREA N:	RAC (Not determined); EE/CA
AREA O:	RAC 5;NOFA
AREA P:	RAC 5;NOFA
AREA Q:	RAC 3;EE/CA
AREA R:	RAC 3;EE/CA
AREA S:	RAC 5;NOFA
AREA T:	RAC 5;NOFA

8. **ISSUES AND CONCERNS:** The Huntsville Center Technical Advisory Group (TAG) met and discussed this ASR on 27 October 1998 and determined the RAC for the site is 2 with a strategy of EE/CA for 545 acres and a strategy of NOFA for 13,621.14 acres. The strategy of EE/CA for the 545 acres applies to the following eight areas: **Area H**, RAC 4; **Area I**, RAC 4; **Area J**, RAC 3; **Area L**, RAC 4; **Area M**, RAC 4; **Area N**, RAC not determined; **Area Q**, RAC 3; and **Area R**, RAC 3. The strategy of NOFA with a RAC 5 for the 13,621.14 acres applies to the following twelve areas: **Area A**, **Area B**, **Area C**, **Area D**, **Area E**, **Area F**, **Area G**, **Area K**, **Area O**, **Area P**, **Area S**, and **Area T**.

HNC Safety Comments: Safety agreed with a RAC of 2 for the site and a strategy of EE/CA for those areas recommended in the ASR with the following two exceptions: (1) Recommended a strategy of NOFA in lieu of EE/CA for **Area H** because the practice bombs found at the site were evidently placed there and should be treated as an isolated incident. Also findings of intact small arms ammunition is to be expected since the site is used as a firing range by the local police department. The ASR Support District reply explained that the intact small arms ammunition was WW II vintage and the police did not train in Area H. **Based on this reply, EE/CA applies for Area H since the RAC score would still be the same at 4 even if the value of 6 for practice bombs was deleted and only the value for small arms, complete round, of 1 was used.** (2) Recommended a strategy of NOFA in lieu of EE/CA for **Area K** because there is no indication of OE in this former landfill area. The ASR Support District replied that a strategy of EE/CA was justified since it was common practice to bury OE on site upon site closure at the end of WW II and magnetometer sweeps of **Area K** revealed a strong magnetic signature. The TAG Concur with safety that since there is no specific historical indication or witness testimony that OE is present in Area K, EE/CA is not justified and NOFA applies. Finally, the ASR author agreed to complete a sentence that was incomplete.

Area N, Rocket Range, 5.00 acres: The TAG decided on a strategy of **EE/CA** for **Area N** based on the E-mail message received from the ASR Support District on 10 July 1998. It stated that three M54 and 22 M69 Incendiary Bombs were recovered from the bottom of Shaw's Mill Pond in Area N by Navy EOD following discovery of the items by an emergency medical team conducting training. Two of the bombs were said to have energetic material. The extent of the Navy EOD operation was not stated. Navy EOD thinks it is likely that the items were dumped in the pond rather than dropped during a training exercise. Given the information provided, it is possible that more bombs may be in the pond. Before receipt of this additional information, the recommended strategy for **Area**

N was **NOFA** because only practice rockets, 2.25", in which rocket motors would have been expended in flight, were fired.

Areas with a strategy of EE/CA: A strategy of EE/CA was determined for **Areas I, J, L, M, Q and R** because these were areas where practice bombs were used in training. **Areas N** and **H** have already been discussed. The ASR Site Inspection Team found fired .50 cal bullets, M69 6 lb. incendiary bomb bodies (empty), MK 23 3 lb. and M38A2 100 lb. practice bomb debris, and fired 2.25" practice rocket bodies during their site visit of the former Millville Bombing and Gunnery Range.

Areas with a strategy of NOFA: **Areas A, B, C, D and F** were areas where ammunition was previously stored. NOFA applies because there is no evidence of ammunition being present; many of the storage structures have been removed. Someone told the ASR Site Inspection team that two cases of military dynamite were found in a structure in **Area F**. The dynamite was removed by the proper authorities, no other items were found, and the building was destroyed to prevent unauthorized use. **Areas E, G, O, P and S** were areas where small arms ammunition was fired; there was no evidence of unfired rounds and the strategy is NOFA. NOFA is the strategy for **Area T**, which includes all remaining land at the site where no evidence of OE was noted. **Area K** has already been discussed.

Memorandum, New York District, Corps of Engineers, Subject: Ordnance and Explosives (OE) Archives Search Report for the Former Millville Bombing and Gunnery Range, Cumberland County, New Jersey, Project Number C02NJ079202, dated 22 April 1998: This memorandum, addressed to the U.S. Army Engineer District, Rock Island, requests that the ASR conclusions and recommendations be revised to clearly address the presence or lack of chemical warfare material at the Millville Bombing and Gunnery Range. The memo includes an attachment with relevant historical documents from S.T. Hudson Engineers Inc. A draft copy of the ASR Support District reply is attached. The ASR author did state that the documents in the attachment are included in the ASR (document F-5) and the chemical warfare materials referred to **are not toxic chemical warfare materials**. Paragraph 4b(4) and sub paragraphs (a) and (b) on pages 20-21 refer to these documents and provide an adequate assessment of the extent to which CWM was used at the site.

Clearances: An inspection dated 27 September 1946, document E-8, states that an inspection of the range was made on 24 January 1946 in which it was reported that the area was properly policed and free of duds and other unexploded ammunition. Another report, Document F-6, dated 4 February 1947, stated that **Scoring**

Range A was contaminated with M38A2 Practice Bombs which contain a 3 lb. spotting charge, M47A1 Practice Bombs which contain a live burster tube, a few 2.25 Rockets Mk 3, and several 3 lb. bombs AN MK5 Mod 1. On 27 January 1947, this area was dedudded and 193 duds were found and destroyed by demolition. A thorough search could not be made because of the thick underbrush. This area was judged to be reasonably safe for grazing but not safe for cultivation.

Other Concerns: (1) HTRW-The site inspection team saw what appeared to be asbestos shingles in the northern part of Area L. (2) Ticks abound between April and October. (3) Access is uncontrolled except for certain airfield and industrial park areas. (4) Hunting occurs within wildlife refuge boundaries. (5) Timber rattlesnakes have been found in the past. (6) Marshy areas and unimproved roads are present; this may require the use of 4 wheel drive.

Natural Resources: Federally and State threatened species occur within the site area and are listed in ASR Findings, pages 7-9, paragraph 3f and Table 3-2. An on-site inspection by appropriate State and Federal personnel may be necessary to verify the presence, absence or location of listed species, or natural communities.

Historical Resources: One registered archeological site has been identified. Two other potential archeological sites are also present. Any intrusive measures taken within the area will require oversight by the State Historical Preservation Office and/or other like organizations.

9. **SCHEDULE SUMMARY:** EE/CA

10. **FUNDING/BUDGET SUMMARY:** For Official Use Only

Filename: NJ079202.DOC
Directory: C:\Program Files\Adobe\Acrobat
4.0\Acrobat\plug_ins\OpenAll\Transform\temp
Template: D:\Program Files\Templates\Normal.dot
Title: RESTORATION INFORMATION MANAGEMENT SYSTEM
Subject:
Author: SMCAC-ESM
Keywords:
Comments:
Creation Date: 11/04/98 4:18 PM
Change Number: 6
Last Saved On: 02/04/00 10:27 AM
Last Saved By: a0pmmjgb
Total Editing Time: 29 Minutes
Last Printed On: 02/04/00 10:29 AM
As of Last Complete Printing
Number of Pages: 11
Number of Words: 3,437 (approx.)
Number of Characters: 17,877 (approx.)